

# Working Group 1

Supporting the NOAA vision  
of EAM - Ecosystem Studies  
with A Protected Species  
Component



# Q1: Characteristics of a region-specific national program

- Mission statement: Provide protected species information to better understand ecosystem dynamics and produce integrated assessments for a particular eco-region
- Should:
  - Address major issues and requirements
  - Cognizant of legislative mandates
  - Coordinate across line offices and programs
  - Exhaustive and inclusive as possible
  - Standardized process to evaluate the most prominent ecosystem factors in each eco-region



## Q2: Experiences which demonstrate how this approach would inform ecosystem based protected species management

- CCAMLR
- NAMMCO
- Sea otters and kelp
- Terrestrial studies
- Several others

## Q3: Research, data, models, and information management

- Trophodynamics
  - Research: relative removals; competition; carrying capacity
  - Data: consumption rates; diet composition; abundance
  - Models: exist but need to be carefully parameterized and tested against data with known outcomes
  - Information management: integrate current data sources

## Q3: Research, data, models, and information management

- Acoustics
  - Research: Acoustic sensing, trends in ocean noise, meteorological measures, assessments
  - Data: Acoustic ocean observing systems
  - Models: validation of existing, further interpretation of environmental conditions
  - Information management: integrated with habitat and ecological factors and environmental features



## Q3: Research, data, models, and information management

- Ocean Health
  - Research: understanding causal relationship between humans, ocean processes, marine / terrestrial ecosystems, and health outcomes
  - Data: long term, contaminants, pathogens, biotoxins, water quality
  - Models: Develop to understand linkages
  - Information Management: must include easy retrieval and interpretation

## Q3: Research, data, models, and information management

- Climate
  - Research: ecosystem productivity and carrying capacity; teleconnections
  - Data: continuous observations; autonomous platforms
  - Models: advancing and need validation
  - Information management: IOOS DMAC integrated with Protected resources data

## Q3: Research, data, models, and information management

- Habitat
  - Research: measurable habitat attributes and species abundance and productivity
  - Data: where and what habitats are important; standardized and statistically valid monitoring
  - Model: parameterizing and validating
  - Information Management: same scales



## Q3: Research, data, models, and information management

- Economics and social science

## Q4: Changes to policy, governance and science administration

- Doable now but more direct legislation would be empowering
- Need regional bodies
  - to evaluate integrated assessments
  - To provide a forum for trade off decision making
- Need dedicated groups to perform integrated science